WHAT IS CLAIMED IS:

1. A microcapillary channel having two opposite sides, wherein the opposite sides have different lengths over a straight portion of the channel.

2. The microcapillary channel of claim 1, wherein the opposite sides comprise a first and a second side and wherein the first side is straight and wherein a portion of the second side projects outwardly away from the first side, thereby widening a portion of the channel.

3. The microcapillary channel of claim 2, wherein the portion of the second side which projects outwardly away from the first side comprises two portions which are angled to the first side and a portion which is parallel to the first side, the portion which is parallel to the first side spanning between the portions which are angled to the first side.

4. A microchannel having a wide portion and narrow portion, wherein the wide portion is defined by a bulge, taper or flare on one side of the microchannel.

5. A microchannel having a wide portion and narrow portion, and having a first side and a second side, wherein the first side remains substantially straight along the length of the microchannel and wherein the second side bulges, tapers or flares away from the first side over a portion of the length of the microchannel.

6. A microchannel system for compensating for skewing of sample plugs as the sample plugs pass around a curved microchannel, comprising:

a first microchannel having two opposite sides, wherein the opposite sides have different lengths over a straight portion of the first channel;

a second microchannel having two opposite sides, wherein the opposite sides have different lengths over a straight portion of the second channel; and

a curved portion of microchannel disposed between, and in fluid communication with, the first and second microchannels, wherein the second sides of the first and second microchannels are disposed towards the interior of the curvature of the curved portion.

7. The microchannel system of claim 6, wherein the curved portion of microchannel is curved by approximately 90°.

8. The microchannel system of claim 6, wherein the curved portion of microchannel is curved by approximately 180°.

9. The microchannel system of claim 6, wherein the opposite sides of the channel have approximately equal lengths over a channel length which includes both the first and second microchannels and the a curved portion of the channel.

10. A microchannel system for compensating for skewing of sample plugs as the sample plugs pass around a curved microchannel, comprising:

a curved portion of microchannel having first and second ends;

a first microchannel having a wide portion and narrow portion, wherein the wide portion is defined by a bulge, taper or flare on one side of the first microchannel, the first microchannel fluidly connected to the first end of the curved portion of microchannel;

a second microchannel having a wide portion and narrow portion, wherein the wide portion is defined by a bulge, taper or flare on one side of the second microchannel, the second microchannel fluidly connected to the second end of the curved portion of microchannel, wherein the bulged, tapered or flared side of the first and second microchannels are disposed towards the interior of the curvature of the curved portion.

11. The microchannel system of claim 10, wherein the opposite sides of the channel have approximately equal lengths over a channel length which includes both the first and second microchannels and the a curved portion of the channel.

12. A microcapillary channel having two opposite sides, wherein the opposite sides have approximately equal lengths over a channel length which includes a curved portion of the channel.

13. A method of moving a sample plug around a curve in a microcapillary microchannel while preventing the channel from becoming skewed relative to the opposite sides of the microchannel, comprising:

advancing the sample plug in a straight path through a straight portion of microchannel;

advancing the sample plug through a first widened portion of microchannel, wherein the first widened portion is defined by a bulge, taper, or flare disposed to one side of the microchannel;

advancing the sample plug around a curved portion of the microchannel; and

advancing the sample plug through a second widened portion of microchannel, wherein the second widened portion is defined by a bulge, taper or flare disposed to one side of the microchannel.

14. The method of claim 13, wherein the bulge, taper or flare disposed to one side of each of the widened portions of the microchannel are disposed on the towards the interior of the curvature of the curved portion.

15. A method of moving a sample plug around a curve in a microcapillary microchannel while preventing the plug from becoming skewed relative to the opposite sides of the microchannel, comprising:

skewing the sample plug by passing it through a first widened portion of microchannel, wherein the first widened portion is defined by a bulge, taper, or flare disposed to one side of the microchannel prior to passing the sample plug through a curved portion of the microchannel; and

skewing the sample plug by passing it through a second widened portion of microchannel, wherein the second widened portion is defined by a bulge, taper, or flare disposed to one side of the microchannel after passing the sample plug through a curved portion of the microchannel.

16. The method of claim 15, wherein,

the sample plug is skewed in a first direction when passing through each of the first and second widened portions of the microchannel, and wherein the sample plug is skewed in an opposite direction when passing through the curved portion of the microchannel.

17. The method of claim 16, wherein,

the amount to which the sample plug is skewed in a first direction when passing through each of the first and second widened portions of the microchannel is

approximately equal to the amount to which the sample plug is skewed in an opposite direction when passing through the curved portion of the microchannel.

18. A method of moving a sample plug around a curve in a microcapillary microchannel while preventing the plug from becoming skewed relative to the opposite sides of the microchannel, comprising:

skewing the sample plug by passing it through at least one widened portion of microchannel, wherein the at least one widened portion is defined by a bulge, taper, or flare disposed to one side of the microchannel; and

passing the sample plug through at least one curved portion of the microchannel.

19. A method of moving a sample plug in a microcapillary microchannel while skewing the plug relative to the opposite sides of the microchannel, comprising:

passing the sample plug through at least one widened portion of microchannel, wherein the at least one widened portion is defined by a bulge, taper, or flare disposed to one side of the microchannel.